Docket No.: 1454.1200

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Anja KLEIN ET AL.

Serial No. 09/530,386 Group Art Unit: 2618

Confirmation No. 7374

Filed: April 27, 2000 Examiner: Nguyen, Tu X

For: METHOD, MOBILE STATION AND BASE STATION FOR CONNECTION SETUP IN A RADIO COMMUNICATION SYSTEM

APPLICANT APPEAL BRIEF UNDER 37 C.F.R. §41.37

Mail Stop Appeal Brief-Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In a Notice of Appeal filed July 30, 2004, and applicants Appeal Reinstatement Request filed February 22, 2005, the Applicant respectively appealed from the Examiner's Final Office Action mailed May 21, 2004, and Final Office Action issued October 22, 2004, finally rejecting claims 18-21 and 24-35. This Appeal Brief is further in response to the Notice of Non-Compliant Appeal Brief, issued March 24, 2009, stating that the Appeal Brief filed August 7, 2006 was defective.

This Appeal Brief includes the substance of the originally filed Appeal Brief of August 7, 2006, and applicants Reply Brief filed December 20, 2006, filed in response to the Examiner's Answer issued October 20, 2006.

Accordingly, submitted herewith is an Applicant Appeal Brief under 37 C.F.R. §41.37. Applicants respectfully submit that all requisite fees under 37 C.F.R. §41.20(b)(2) have already been paid.

If any further fees are required in connection with this filing, please charge our Deposit Account No. 19-3935.

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I. REAL PARTY IN INTEREST

Due to the assignment executed on October 6, 1998, by inventor Anja Klein, October 14, 1998, by inventor Michael Färber, and October 21, 1998, by inventor Christian Lüders, and submitted for recordation with the United States Patent and Trademark Office with the initial filing, the real party in interest is as follows:

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II. RELATED APPEALS AND INTERFERENCES

Although the real party in interest has other appeals and interferences, none of the other pending appeals and interferences is believed to directly affect or be directly affected by, or have any bearing upon the decision of the Board of Patent Appeals and Interferences in this appeal.

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III. STATUS OF CLAIMS

Claims 18-21 and 24-35 are rejected.

Claims 1-17 and 22-23 are canceled.

Claims 18-21 and 24-35 are being appealed.

IV. STATUS OF AMENDMENTS

The Amendment filed July 30, 2004, prior to the Final Office Action mailed October 22, 2004, with amendments to claims 18-21 and 24-34 and a of canceling claim 22, has been entered, as indicated in the Final Office Action mailed October 22, 2004.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The independent claims being appealed are 18, 33, 34, and 35.

The dependent claims being appealed are 19-21 and 24-32.

A. Independent Claim 18

The summary of the claimed subject matter for claim 18, with support recitations, is as follows:

18. (Previously Presented) A method for connection setup for mobile stations of a radio communication system having at least one base station, comprising:

Summary and Support: See, for example, the present Application page 5, lines 7-12; See BS and MS in FIGS. 1 and 4.

recurrently offering frequency channels for a random access in an upstream direction for the mobile stations;

Summary and Support: See, for example, the present Application page 5, lines 19-24; page 8, lines 10-16; frequency channels FK (rach) in FIGS. 2 and 3.

The mobile stations are permitted to initiate random access in an upstream direction, on their own, without a particular frequency channel having been previously allocated to the mobile station. The system, thus, respectively offers frequency channels (random access channels) adapted to a time grid of a frame structure for radio transmission, such that a mobile station may request a connection setup through the sending of an access radio block rab with such a frequency channel. The term 'recurrently' includes different kinds of patterns, not only a periodic pattern with a predetermined frequency.

in the mobile station that requests a connection setup, measuring a reception power of a signal sent from the base station in a downstream direction; and

Summary and Support: See, for example, the present Application page 5, line 25, through page 6, line 6.

in the mobile station, setting a transmission power dependent on the measured reception power for sending an access radio block to the base station,

Summary and Support: See, for example, the present Application page 6, lines 6-24.

wherein codes are used to separate information of different connections between the base station and mobile stations,

Summary and Support: See, for example, the present Application page 7, line 6, through page 8, line 26, and FIG. 2. As discussed on page 8, lines 2-4, the data d illustrated in FIG. 2 may be "connection-individually spread with a fine structure, a subscriber code c, so that, for example, K connections can be separated by these CDMA components at the reception side." A fine structure is a radio resource unit.

Using connection-individual fine structures means that each connection uses a specific radio resource unit (e.g., a code for CDMA, a frequency for FDMA, a time slot for TDMA, a direction space for SDMA). These connection-specific radio resource units may be more or less orthogonal to each other so that information of different connections can be separated from each other.

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power, and

Summary and Support: See, for example, the present Application page 6, line 32, through page 7, line 6, which discusses that if the random access has not been detected at an initial attempt, a renewed random access can be initiated by the mobile station with slightly increased transmission power tp.

wherein the signal transmitted in the downstream direction is a pilot signal."

Summary and Support: See, for example, the present Application page 6, lines 3-7, and page 10, line 32, through page 11, line 2.

Independent claim 18 is a method claim. Further to the above summary and support, the following is noted.

As noted in the Abstract of the present application, when the base station recurrently offers frequency channels for a random access for mobile stations in an upstream direction, the mobile station can request a connection setup with the base station by measuring a reception power of a signal sent in a downstream direction by the base station and sets a transmission power for sending an access radio block to the base station dependent on the measured reception power. A variable transmission power control can thus be implemented at the mobile station side with the assistance of the measured reception power of the signal transmitted on the part of the base station, being also capable of being implemented for random access of the mobile stations.

Conventionally, when base stations offered frequency channels for random access, mobile stations were required to send access blocks with maximum transmission power, because the transmission conditions were not yet known at the transmitter side and to assure that a mobile station located at the edges of the radio cell that transmits an access radio block generates a signal at the base station that is strong enough for detection. See the present application on page 1, line 25, through page 2, line 5. However, when two or more stations would attempt to actuate the random access in the same time slot and frequency band, radio blocks with lower power would not be capable of being interpreted and would have to be re-transmitted at a later point in time by the affected mobile stations. Further, when two or more signals having nearly the same power intensity levels arrive at the base station, both signals may possibly be detected and must be reinitiated. In addition, by permitting mobile stations to transmit at less than a maximum power level potential interferences between mobile stations can be reduced.

Thus, independent claim 18 sets forth a method with transmission power control that can thus be implemented at the mobile station side with the assistance of the measured reception power of the signal transmitted on the part of the base station.

B. Independent Claim 33

The summary of the claimed subject matter for claim 33, with support recitations, is as follows:

33. (Previously Presented) A mobile station to which a connection setup is to be provided in a radio communication system having at least one base station, and wherein frequency channels are recurrently offered for a random access in an upstream direction for the mobile station, comprising:

Summary and Support: See, for example, the present Application page 5, lines 7-12; See BS and MS in FIGS. 1 and 4; and page 5, lines 19-24; page 8, lines 10-16; frequency channels FK (rach) in FIGS. 2 and 3.

The mobile stations are permitted to initiate random access in an upstream direction, on their own, without a particular frequency channel having been previously allocated to the mobile station. The system, thus, respectively offers frequency channels (random access channels) adapted to a time grid of a frame structure for radio transmission, such that a mobile station may request a connection setup through the sending of an access radio block rab with such a frequency channel. The term 'recurrently' includes different kinds of patterns, not only a periodic pattern with a predetermined frequency.

a measuring unit for measuring a reception power of a signal sent from the base station in a downstream direction when the mobile station requests a connection setup;

Summary and Support: See, for example, the present Application page 5, line 25, through page 6, line 6; page 10, lines 9-16; Signal Processing means SP in FIG. 4.

a transmission power setting unit which, dependent on measured reception power, sends an access radio block to the base station; and

Summary and Support: See, for example, the present Application page 6, lines 6-24; control means ST and transmission means SE of FIG. 4, an page 10, lines 3-5.

a control panel for triggering the random access,

Summary and Support: See, for example, the present Application page 6, lines 6-24; control means ST of FIG. 4, and page 10, lines 5-17.

wherein said measuring unit comprises a signal processing unit for measuring the reception power of the signal sent in the downstream direction from the base station and for generating the access radio block,

Summary and Support: See, for example, the present Application page 5, line 25, through page 6, line 6; page 10, lines 9-16; Signal Processing means SP in FIG. 4.

wherein said transmission power setting unit comprises a control unit for setting the transmission power for the transmission of the access radio block to the base station dependent on the measured reception power,

Summary and Support: See, for example, the present Application page 6, lines 6-24; control means ST of FIG. 4, and page 10, lines 5-17.

wherein codes are used to separate information of different connections between the base station and mobile stations,

Summary and Support: See, for example, the present Application page 7, line 6, through page 8, line 26, and FIG. 2. As discussed on page 8, lines 2-4, the data d illustrated in FIG. 2 may be "connection-individually spread with a fine structure, a subscriber code c, so that, for example, K connections can be separated by these CDMA components at the reception side." A fine structure is a radio resource unit.

Using connection-individual fine structures means that each connection uses a specific radio resource unit (e.g., a code for CDMA, a frequency for FDMA, a time slot for TDMA, a direction space for SDMA). These connection-specific radio resource units may be more or less orthogonal to each other so that information of different connections can be separated from each other.

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power, and

Summary and Support: See, for example, the present Application page 6, line 32, through page 7, line 6, which discusses that if the random access has not been detected at an initial attempt, a renewed random access can be initiated by the mobile station with slightly increased transmission power tp.

wherein the signal transmitted in the downstream direction is a pilot signal.

Summary and Support: See, for example, the present Application page 6, lines 3-7, and page 10, line 32, through page 11, line 2.

Independent claim 33 is an apparatus claim. The above further summary for claim 18 is incorporated by reference here for claim 33.

C. Independent Claim 34

The summary of the claimed subject matter for claim 34, with support recitations, is as follows:

34. (Previously Presented) A base station in a radio communication system wherein a connection setup occurs from mobile stations, and wherein the mobile station that requests a connection setup measures a reception power of a signal sent from the base station in a downstream direction, and wherein the mobile station sets a transmission power dependent on the measured reception power for sending an access radio block to the base station, comprising:

Summary and Support: See, for example, the present Application page 5, lines 7-12; See BS and MS in FIGS. 1 and 4; page 5, line 25, through page 6, line 6; page 10, lines 9-16, and Signal Processing means SP in FIG. 4, for measuring the reception power; and page 6, lines 6-24; control means ST and transmission means SE of FIG. 4, an page 10, lines 3-5, for the setting of the transmission power.

a unit for recurrently offering frequency channels for a random access in an upstream direction for the mobile stations;

Summary and Support: See, for example, the present Application page 5, lines 19-24; page 8, lines 10-16; frequency channels FK (rach) in FIGS. 2 and

3. See page 10, lines 22-32, the transmission/reception means SE/EE of the BS in FIG. 4.

The mobile stations are permitted to initiate random access in an upstream direction, on their own, without a particular frequency channel having been previously allocated to the mobile station. The system, thus, respectively offers frequency channels (random access channels) adapted to a time grid of a frame structure for radio transmission, such that a mobile station may request a connection setup through the sending of an access radio block rab with such a frequency channel. The term 'recurrently' includes different kinds of patterns, not only a periodic pattern with a predetermined frequency.

a signal processing unit for generating the signal to be transmitted in the downstream direction; and

Summary and Support: See, for example, the present Application page 10, lines 22-32, the signal processing means SP of the BS in FIG. 4.

a control unit for setting a transmission power for sending the signal to the mobile station that requests the connection setup,

Summary and Support: See, for example, the present Application page 10, lines 29-32, the control means ST of the BS in FIG. 4.

wherein codes are used to separate information of different connections between the base station and mobile stations,

Summary and Support: See, for example, the present Application page 7, line 6, through page 8, line 26, and FIG. 2. As discussed on page 8, lines 2-4, the data d illustrated in FIG. 2 may be "connection-individually spread with a fine structure, a subscriber code c, so that, for example, K connections can be separated by these CDMA components at the reception side." A fine structure is a radio resource unit.

Using connection-individual fine structures means that each connection uses a specific radio resource unit (e.g., a code for CDMA, a frequency for FDMA, a time slot for TDMA, a direction space for SDMA). These connection-specific radio resource units may be more or less orthogonal to each other so that information of different connections can be separated from each other.

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power, and

Summary and Support: See, for example, the present Application page 6, line 32, through page 7, line 6, which discusses that if the random access has not been detected at an initial attempt, a renewed random access can be initiated by the mobile station with slightly increased transmission power tp.

wherein the signal transmitted in the downstream direction is a pilot signal.

Summary and Support: See, for example, the present Application page 6, lines 3-7, and page 10, line 32, through page 11, line 2.

Independent claim 34 is an apparatus claim. The above further summary for claim 18 is incorporated by reference here for claim 34.

D. Independent Claim 35

The summary of the claimed subject matter for claim 35, with support recitations, is as follows:

35. (Previously Presented) A mobile station for transmission of data, block-by-block, to a base station on frequency channels, which are recurrently offered for random access, comprising:

Summary and Support: See, for example, the present Application page 5, lines 7-12; See BS and MS in FIGS. 1 and 4; and page 5, lines 19-24; page 8, lines 10-16; frequency channels FK (rach) in FIGS. 2 and 3.

The mobile stations are permitted to initiate random access in an upstream direction, on their own, without a particular frequency channel having been previously allocated to the mobile station. The system, thus, respectively offers frequency channels (random access channels) adapted to a time grid of a frame structure for radio transmission, such that a mobile station may request a connection setup through the sending of an access radio block rab with such a frequency channel. The term 'recurrently' includes different kinds of patterns, not only a periodic pattern with a predetermined frequency.

a measuring unit for measuring a reception power of a broadcast signal transmitted by the base station, the broadcast signal being selected from the group consisting of a training sequence signal, a data sequence signal, a pilot signal and a control signal;

Summary and Support: See, for example, the present Application page 5, line 25, through page 6, line 6; page 10, lines 9-16; Signal Processing means SP in FIG. 4.

a transmitter to send an access radio block to the base station without a frequency channel having been previously allocated to the mobile station, the access block requesting a connection setup with the base station, the transmitter transmitting the access block to the base station on a random access channel; and

Summary and Support: See, for example, the present Application page 6, lines 6-24; control means ST and transmission means SE of FIG. 4, an page 10, lines 3-5; page 9, lines 1-3, recites: "Access radio blocks rab can be sent within the sub-ranges UB as needed by mobile stations MS without prior allocation at the network side and without spread." See page 9, lines 9-24, describing the use of the radio block rab by the base station for requesting a connection setup with the base station BS.

a power limiter to limit a transmission power of the access radio block before transmission of the access radio block such that the transmission power is reduced for a larger reception power and the power is increased for a lower reception power,

Summary and Support: See, for example, the present Application page 6, lines 6-32; control means ST and transmission means SE of FIG. 4, an page 10, lines 3-5. Page 6, lines 6-9, recites: "The transmission power tp of the access radio block rab is preferably set all the higher by a control means ST of the mobile station MS the lower the reception power rp measured by the signal processing means SP is." See page 6, lines 18-32, setting forth level limiting, and page 7, lines 10-12, recommending against maximum transmission power.

wherein codes are used to separate information of different connections between the base station and mobile stations,

Summary and Support: See, for example, the present Application page 7, line 6, through page 8, line 26, and FIG. 2. As discussed on page 8, lines 2-4, the data d illustrated in FIG. 2 may be "connection-individually spread with a fine structure, a subscriber code c, so that, for example, K connections can be separated by these CDMA components at the reception side." A fine structure is a radio resource unit.

Using connection-individual fine structures means that each connection uses a specific radio resource unit (e.g., a code for CDMA, a frequency for FDMA, a time slot for TDMA, a direction space for SDMA). These connection-specific radio resource units may be more or less orthogonal to each other so that information of different connections can be separated from each other.

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power.

Summary and Support: See, for example, the present Application page 6, line 32, through page 7, line 6, which discusses that if the random access has not been detected at an initial attempt, a renewed random access can be initiated by the mobile station with slightly increased transmission power tp.

Independent claim 35 is an apparatus claim. The above further summary for claim 18 is incorporated by reference here for claim 35.

E. Dependent Claim 19

19. (PREVIOUSLY PRESENTED) The method according to claim 18, wherein the radio communication system is configured as a TDMA/CDMA radio communication system, plurality of connections between the mobile frequency channels information of different connections can be distinguished from one another according to a connection-individual code, whereby information is simultaneously transmitted between stations and the base station in time slots based on the information of the codes used to separate information of different connections.

Summary and Support: See, for example, the present Application page 7, lines 17-32; See FIG. 2.

F. Dependent Claims 20 and 32

20. (Previously Presented) The method according to claim 19, wherein the information of different connections are spread with the individual codes.

Summary and Support: See, for example, the present Application page 8, lines 2-4, "The data d are connection-individually spread with a fine structure, a subscriber code c, so that, for example K connections can be separated by these CDMA components at the reception side."

32. (Previously Presented) The method according to claim 18, wherein the access radio block is spread with an individual code.

Summary and Support: See, for example, the present Application page 8, lines 2-9; See FIG. 2.

G. Dependent Claim 21

21. (Previously Presented) The method according to claim 18, wherein the mobile station sets the transmission power all the higher the lower the measured reception power is.

Summary and Support: See, for example, the present Application page 6, lines 6-9.

H. Dependent Claims 24 and 25

24. (Previously Presented) The method according to claim 18, wherein another signal transmitted in the downstream direction is a training sequence signal.

Summary and Support: See, for example, the present Application page 6, lines 3-6.

25. (Previously Presented) The method according to claim 18 wherein another signal transmitted in the downstream direction is a data signal.

Summary and Support: See, for example, the present Application page 6, lines 3-6.

I. Dependent Claims 26 and 27

26. (Previously Presented) The method according to claim 18, wherein the mobile station estimates a radio field attenuation in the downstream direction on the basis of the measured reception power and sets the transmission power such that the radio field attenuation is partially compensated.

Summary and Support: See, for example, the present Application page 6, lines 18-23.

27. (Previously Presented) The method according to claim 26, wherein the mobile station sets the transmission power such that the radio field attenuation is completely compensated.

Summary and Support: See, for example, the present Application page 6, lines 18-23.

J. Dependent Claims 28-29

28. (Previously Presented) The method according to claim 18, wherein at least one auxiliary information is inserted into the signal sent in the downstream direction, this being employed by the mobile station for setting the transmission power.

Summary and Support: See, for example, the present Application page 6, lines 10-17.

29. (Previously Presented) The method according to claim 28, wherein the auxiliary information is composed of an information about the transmission power used by the base station in the downstream direction.

Summary and Support: See, for example, the present Application page 6, lines 10-17.

K. Dependent Claim 30

30. (Previously Presented) The method according to claim 18, wherein a broadband frequency range is divided into sub-ranges having a narrower bandwidth within a frequency channel for the random access, the mobile station that requests the connection setup selecting a sub-range within said frequency channel, and the mobile station sending the access radio block to the base station in this sub-range.

Summary and Support: See, for example, the present Application page 8, line 27, through page 9, line 24; See FIG. 3.

L. Dependent Claim 31

31. (Previously Presented) The method according to claim 18, wherein the access radio block is not spread.

Summary and Support: See, for example, the present Application page 8, line 27, through page 9, line 24; See FIG. 3.

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VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 18-20, 24-29, and 31-35 stand rejected under 35 USC 103 as being obvious over Jolma et al., U.S. Patent 5,806,003, in view of Gardner et al., U.S. Patent No. 5,729,557, and Hayashi et al., U.S. Patent No. 6,069,884, and Oberholtzer et al., U.S. Patent No. 5,465, 399.

B. Claim 21 stands rejected under 35 USC 103 as being obvious over Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., in view of Gilhousen et al., U.S. Patent No. 5,485,486.

C. Claim 30 stands rejected under 35 USC 103 as being obvious over Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., in view of Bender et al., U.S. Patent No. 6,366,779.

VII. ARGUMENT

A. Claims 18-20, 24-29, and 31-35 stand rejected under 35 USC 103 as being obvious over Jolma et al., U.S. Patent 5,806,003, in view of Gardner et al., U.S. Patent No. 5,729,557, and Hayashi et al., U.S. Patent No. 6,069,884, and Oberholtzer et al., U.S. Patent No. 5,465, 399.

1. Independent claim 18

The outstanding Office Action (Office Action) sets forth that Jolma et al. sets forth all the claimed features except for a number of clamed features, including the claimed setting a transmission power for a sending of an access radio block to the base station, that codes are used to separate information connections between the base station and mobile stations, the sending of a new access radio block by the mobile station with increased power if the access radio block has not been successfully detected, and that the signal transmitted in the downstream direction is a pilot signal.

Briefly, Jolma et al. pertains to a power control system for a GSM mobile terminal. As stated in the Abstract of Jolma et al., "the base station informs the mobile units of its existence on a common control channel in a TDMA slot, at least one control channel is dedicated to the mobile terminals seeking connection, and the power level of the connection-seeking signal is dependent on the measured power level, downlink, from the base station."

In Jolma et al., a calculation of a mobile's transmission power (col. 4, lines 33-39) is derived with the aim to ensure that a base station will be able to successfully detect the mobiles signal.

Differently from Jolma et al., Hayashi et al. pertains to a CDMA system, whereby the base station possesses a plurality of transmit antennas. Hayashi et al. further deals with the sending of signals via the plurality of antennas and receiving and handling the signals at the mobile.

Accordingly, first the Office Action further uses Gardner et al. to set forth the claimed sending of the access radio block to the base station the Examiner has cited Gardner et al. as setting forth the sending of an access block to a base station, and summarily concludes that the

addition of this feature to Jolma et al. would have been obvious "in order to provide power transmission in different code rates and applying convolutional codes to data having a block structure."

Then, to add the claimed use of codes to separate information of different connections between the base station and mobile stations to the combination of Jolma et al. and Gardner et al. the Examiner points out that Hayashi et al. sets forth the use of codes to separate information connections between a base station and mobile stations. Again, the Examiner summarily concludes that this addition would have been obvious "in order to provide differentially-coding information indicative of one of plurality of antennas to be used."

However, here, it is generally known that GSM systems, in principle, do not use a plurality of transmit antennas. Thus, one skilled in the art of GSM systems (after reviewing the disclosure of Jolma et al.) would not look to the disclosure of Hayashi et al. See FIG. 1 of Jolma et al. compared to FIG. 1 of Hayashi et al., where this clear differences are illustrated.

In presenting their arguments, applicants note the use of multiple antennas in Hayashi et al., as merely one example of the differences between Hayashi et al. and Jolma et al. and CDMA and GSM architectures.

In the Examiner's Reply Brief of October 20, 2006, the Examiner appeared to argue that the rejection was not based on the use of three antenna in Jolma et al., but the incorporation from Hayashi et al. of a use of multiple codes to separate information connections between base stations and the mobile stations, which Examiner thereafter summarily argues would have been obvious even though "Jolma and Hayashi et al. are using different signal structure but would be obviously combinable for the systems that are both providing connections between the base station and mobile terminals."

Here, applicants have recognized the Examiner's position and the proposed modification of Jolma et al., but have attempted to point out the multiple differences in both data/signal structure and signaling environment between the systems of Jolma et al. and Hayashi et al., with the above reference to the multiple antenna of Hayashi et al. being merely one of these examples.

Further, here, it is respectfully submitted that the rejection rationale has been structured to suggest that it would have been obvious to modify Jolma et al. to include a feature from Hayashi et al. regardless of differences between the references, with the Examiner appearing to base the rejections primarily on an argument that such a combination would have been possible since both are in a similar field of communicating between a mobile unit and a base station.

However, if such an obvious to try or "obviously combinable" conclusion was valid just because references dealt with communicating between a mobile unit and a base station, then it would have been obvious to add the same feature to each and every reference in the entire field. Which cannot be considered a valid statement. The implementation of a feature in Hayashi et al. is for a particular purpose and advantage in the environment of Hayashi et al. Just because Jolma et al. also communicates with a base station does not mean that each and every feature of Hayashi et al. would have been obvious to modify into Jolma et al. There must be at least something that links the desire/need/benefit between this feature in Hayashi et al. and Jolma et al.

In addition, the emphasis in Jolma et al. is on a signal being sent from a mobile to the base station, namely on the Channel Request Message of the mobile (and thereafter on a message from the mobile to the base station about the power level used by the mobile for transmitting the channel request, see claim 1 in Jolma et al.)

In contrast, Hayashi et al. is directed toward signals being sent from the base station to the mobile. Essentially, Jolma et al. is directed toward the "uplink" while Hayashi et al. is directed toward the "downlink."

The above technical difference explanation was previously presented in the response filed December 3, 2003, wherein the applicants further pointed out that, as detailed in the MPEP, where one reference is directed in one direction, and a suggested modification of the same would change the direction of the primary reference, the motivation to still make such a combination is quite lessened. Similarly, here with Jolma et al. being directed to the uplink, and all the associated problems thereof, it would not have been obvious to radically change Jolma et al., as suggested in the Office Action.

Further, as also pointed out in the same December 3, 2003 response, Jolma et al. details the process of a call establishment, while Hayashi et al. pertains to signals in the course of a communication between a mobile and a base station.

However, it is well known that the first phase of a communication, which includes the establishment of the connection, has to follow particular rules and is subject to restrictions strictly different from the rest of the communication. In principle, procedures used in the course of a communication cannot be applied to the first phase of the establishment of the connection. Therefore, one skilled in the art, and familiar with call establishments, would not have looked to Hayashi et al., as suggested in the Office Action, to modify the Jolma et al. call establishment method.

Regardless, though these technical discussions were previously presented, applicants have not received a sufficient traversal of the same.

In addition, similar to the outstanding conclusions of what features would be obvious based on the same conclusions of motivation, the Examiner has further cited Oberholtzer et al. as disclosing the sending of a new access radio block by the mobile station with increased power if the access radio block was not detected successfully, and concludes the addition of this feature to the combination of Jolma et al., Gardner et al., and Hayashi et al. "in order to provide variable transmission power capability to ensure reliable communications between receivers."

Further, as independent claim 18 includes the feature of the signal transmitted in the downstream direction is a pilot signal, it is noted that to disclose this feature the Examiner has merely relied upon Hayashi et al. as disclosing the same.

Thus, without any obviousness analysis, the Examiner, in the previous rejection of canceled claim 22, merely added that feature to the aforementioned combination of Jolma et al., Gardner et al., and Hayashi et al. The Examiner presumably similarly makes this addition of this feature to the combination of Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer without analysis, merely because the argument for adding the previous feature of Hayashi et al. has been made, i.e., no obviousness argument has been made for the addition of the pilot

signal feature since the Examiner appears to believe it not necessary with a previous feature of Hayashi et al. having already been combined with Jolma et al. and Gardner et al.

Regardless, the above are merely examples of the outstanding rejection obviousness rationales the Examiner has cited which features are missing from the primary reference, or the already modified primary reference, cites a reference disclosing that feature, and concludes that the combination is obvious for some undocumented benefit or need. The rejection fails to evidence where the cited motivation is supported in the record, how it is applicable to the primary or modified primary reference, or why it is even relevant and/or needed/desired with the primary or modified primary reference. The rejections all would appear to fail to properly set forth a prima facie obviousness case.

The Examiner has agreed that Jolma et al. fails to disclose a majority of the claimed features, but believes that the same reference can be modified to disclose the claimed invention. This modification includes adding different references by adding their respective different features to Jolma et al. Each respective feature existed in each reference for a particular reason for that particular system and/or to solve a particular relevant problem or to provide a relevant benefit, i.e., in the corresponding particular environment.

It is respectfully submitted that the blind addition of features from multiple references fails to meet a prima facie obviousness standard. In addition, when the Examiner fails to address particular technical differences or particular non-obviousness technical arguments, applicants are not being provided with any guidance on how to progress prosecution towards allowance.

As commonly understood, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art..."[the Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In re Fritch, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992).

The Examiner is required to present actual evidence and make particular findings related to the motivation to combine the teachings of the references. In re Kotzab, 55 USPQ2d 1313,

1317 (Fed. Cir. 2000); In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Further, the Examiner must explain the reasons that one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. In re Rouffet, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." Dembiczak, 50 USPQ2d at 1617.

Further, it is well settled that "the Board [and Examiner] cannot simply reach conclusions based on [their] own understanding of experience - or on [their] assessment of what would be basic knowledge or common sense. Rather the Board [and Examiner] must point to some concrete evidence in the record in support of these findings." In re Zurko, 258 F. 3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). See also In re Lee, 277 F. 3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002), in which the court required evidence for the determination of unpatentability by clarifying that the principles of "common knowledge" and "common sense" may only be applied to the analysis of evidence, rather than be a substitute for evidence. The court has also recently expanded their reasoning on this topic in In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002).

Thus, accordingly, a prima facie obviousness rejection requires evidenced motivation or reasoning from something in the record that would lead one skilled in the art to combine, or suggest why one skilled in the art would combine, the relevant teachings, noting that the mere fact that the prior art may be modified in a particular manner does not make the modification obvious unless the prior art suggested the desirability of that modification. Further, the mere fact that features exist independent of each other in different environments does not make their combination obvious, or meet the requirement of a "reasonable chance of success" for a prima facie obviousness case.

Accordingly, the aforementioned rejection rationales are improper. The Examiner has failed to evidence where the recited motivation is supported by the record, and more importantly, the Examiner has failed to relate the recited motivation the underlying primary or modified primary reference.

The rejections would appear to merely recite a benefit the Examiner discerned from a feature in a secondary reference and summarily concluded that it would have been obvious to add that feature to the primary or modified primary reference for this discerned benefit without any analysis of whether that benefit is relevant to the primary or modified primary reference, whether that benefit is applicable to the primary or modified primary reference, or whether the corresponding teaching in that secondary reference would therefore lead one skilled in the art to incorporate the same feature into the primary or modified primary reference or solve a similar problem in the primary or modified primary reference. The rejections fail to present any corresponding analysis required in a prima facie obviousness case.

Further to the inadequacies of the outstanding rejections, Applicants have routinely presented multiple technical discussions as to why one skilled in the art would not have made the proffered modification or combination. The lack of the Examiner to respond to the particular non-obviousness remarks has been pointed out to the Examiner previously.

Here, it was previously noted to the Examiner that, according to MPEP 707.07(f), a failure of the Examiner to address the applicant's traversals can be deemed a failure to rebut these arguments so as to admit that the arguments have overcome the rejection. At the very least, the failure to address the applicant's traversals would render the Examiner's decision to again reject the claims arbitrary and capricious and invalid under the Administrative Procedures Act, 5 U.S.C. § 706, the standard under which such rejections are reviewed in view of Dickinson v. Zurko, 527 U.S. 150, 50 USPQ2d 1930 (1999). In response to particular technical discussions pointing out why the proffered combinations would not have been obvious the Examiner has rather relied on the Examiner's recited motivation and not rebutted the technical merits of Applicants remarks.

Again, regarding the above discussions where applicant pointed out the technical differences between the relied upon references, applicants have previously further argued that one skilled in the art, and familiar with call establishments, would not have looked to Hayashi et al., as suggested in the Office Action, to modify the Jolma et al. call establishment method.

As pointed out by applicants, the power determination systems between Jolma et al. and Hayashi et al. are substantially different, such that there is no need for the such a use of the

referenced pilot signal by Jolma et al. since Jolma et al. does not have to sample the power level before communicating and that it wants to make sure that its signal is received. Thus, regardless of a proposition that Jolma et al. could be modified, there is no reason for the same.

The Examiner has previously responded to these particular technical arguments by merely countering that the underlying combinations are proper since both references are directed in the same field, i.e., two way communication, for example. The entire substance of Applicants' arguments would appear to have been dismissed without discussion.

The Examiner's argument that the obviousness arguments are proper since both references deal with two-way communication and because both references are wireless data signal connection oriented, does not refute or counter the aforementioned detailed non-obviousness evidence. Regardless, it is respectfully submitted that one skilled in the art would not have made the purported combination.

Further, as noted above, independent claim 18 includes the feature that if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power. An example of this feature can be found discussed in the filed specification on page 6, line 7, through page 7, line 5.

As noted above, and in a previous response, it was similarly pointed out that, Jolma et al. failed to address the problem of the base station not having received the signal sent by the mobile station. In fact, in Jolma et al., the calculation of the mobiles transmission power (col. 4, lines 33-39) aims at *already* providing for the base station being able to successfully detect the mobiles signal *for sure*.

Thus, the aforementioned Office Action proposed new feature for Jolma et al. amounted to adding a solution to Jolma et al. for a problem neither disclosed, suggested, or present in the system of Jolma et al.

To disclose this feature, the Examiner has cited Oberholtzer et al. to disclose this feature and merely argues that it would have been obvious to add the same to the combination of Jolma et al., Gardner et al., and Hayashi et al. "in order to provide variable transmission power

capability to ensure reliable communication between transceivers." Similar to above, there is no particular support in the record for the applicability of this motivation or reason or its applicability to the Jolma et al. combination.

Regardless, it is respectfully submitted that it would not have been obvious to add this feature from Oberholtzer et al. to the Jolma et al. combination.

To initially establish a connection, Oberholtzer et al. uses a default transmit power level. Oberholtzer et al. in col. 7, lines 14-17. If no stations respond to the transmissions at this transmit power, the transmit power level of the station is incrementally increased in steps. Oberholtzer et al. in col. 7, lines 17-21. This means that the station of Oberholtzer et al. cannot chose its transmit power level, but must use some prescribed level which is the default transmit power. As the initial transmit power can accordingly not be adapted to a current circumstances of the station, it can not determine whether the signal of the station will be received. To make sure the signal will be received, the station increases its transmit power if there is no answer to its signal. To summarize: in Oberholtzer et al., increasing the transmit power serves as a security mechanism for ensuring the reception of the signal of the Oberholtzer et al. station.

However, Jolma et al. *already* includes a mechanism to ensure the reception of the mobile station's signal, namely a certain calculation performed by the mobile of the transmit power to be applied by the mobile, described in Jolma et al. in col. 4, lines 33-39. The calculation of the mobile's transmit power makes *sure* that the signal sent from the mobile knows the attenuation on the radio path from the base station to the mobile station and adds this attenuation to its described power level.

By combining Jolma et al. and Oberholtzer et al., the Examiner is adding the Oberholtzer et al. security mechanism to a system (Jolma et al.) which *already* has a working security mechanism.

In this case, one skilled in the art would not have added the additional security mechanism to Jolma et al., i.e., Jolma et al. does not need the cited feature of Oberholtzer et al.

Further, it is respectfully submitted that one skilled in the art, looking at Jolma et al. with the aim of modifying Jolma et al. to make sure a signal from the mobile station will be received

at the base station, would actually proceed as follows: instead of calculating the transmit power by simply adding together the attenuation and the desired power level, one skilled in the art would add up the attenuation and the desired power level and some secondary margin. Regardless, even this potential modification of Jolma et al. would not disclose the presently claimed invention.

Thus, in addition to the outstanding obviousness rejections failing to properly set forth prima facie obviousness cases, it is further respectfully submitted that one skilled in the art would not have made the Examiner's proffered combinations.

Therefore, it is respectfully submitted that independent claim 18 is patentably distinct from Jolma et al., Gardner et al., Hayashi et al., and/or Oberholtzer et al., alone or in combination.

2. Independent claim 33

Independent claim 33 at least sets forth features similar to the method features of independent claim 18, in a "mobile station". In addition, independent claim 33 further sets forth the claimed control panel for triggering random access, the claimed signal processing unit for measuring the reception power of the signal sent in the downstream direction and for generating the access radio block.

Based both on the above discussion regarding independent claim 18 and the respective features of independent claim 33, it is respectfully submitted that independent claim 33 is at least is patentably distinct from Jolma et al., Gardner et al., Hayashi et al., and/or Oberholtzer et al., alone or in combination.

3. Independent claim 34

Independent claim 34 at least sets forth features similar to the method features of independent claim 18, in a "base station". In addition, independent claim 34 further sets forth the claimed unit for recurrently offering frequency channels for a random access, a signal processing unit for generating the signal to be transmitted in the downstream direction, and a

control unit for setting a transmission power for sending the signal to the mobile station that requests the connection setup. Independent claim 34 is further defined as operating according to the mobile station operation set forth in the preamble of claim 34.

Based both on the above discussion regarding independent claim 18 and the respective features of independent claim 34, it is respectfully submitted that independent claim 34 is at least is patentably distinct from Jolma et al., Gardner et al., Hayashi et al., and/or Oberholtzer et al., alone or in combination.

4. Independent claim 35

Independent claim 35 at least sets forth features similar to the method features of independent claim 18, in a "mobile station". In addition, independent claim 35 further sets forth the claimed measuring unit for measuring a reception power of a broadcast signal transmitted by a base station, the broadcast signal being selected from the group of a training sequence signal, a data sequence signal, a pilot signal and a control signal, a transmitter to send an access radio block to the base station without a frequency channel having been previously allocated, and the transmitter transmitting the access block to the base station on a random access channel, and a power limiter to limit a transmission power of the access radio block before transmission of the access radio block such that the transmission power is reduced for a larger reception power and the power is increased for a lower transmission power.

Based both on the above discussion regarding independent claim 18, and the respective features of independent claim 35, it is respectfully submitted that independent claim 35 is at least is patentably distinct from Jolma et al., Gardner et al., Hayashi et al., and/or Oberholtzer et al., alone or in combination.

5. Dependent claim 19

It is respectfully submitted that dependent claim 19 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., at least for the above remarks regarding the distinct status of independent claim 18. Further, neither Gilhousen et al. nor Bender et al. disclose the same deficiencies.

It is further respectfully submitted that dependent claim 19 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al. and Bender et al., for at least its respective features.

Dependent claim 19 sets forth: "wherein the radio communication system is configured as a TDMA/CDMA radio communication system, plurality of connections between the mobile frequency channels information of different connections can be distinguished from one another according to a connection-individual code, whereby information is simultaneously transmitted between stations and the base station in time slots based on the information of the codes used to separate information of different connections."

Further, the obviousness rejections of claim 19, similar to above, would appear to merely recite the missing feature, where that feature can be found, and conclude it obvious to add that feature for unsupported motivation or reasoning.

In particular, the Examiner has merely indicated that Hayashi et al. sets forth all these features, and that it would have been obvious to add these features "in order to provide multiple access diversity transmitting wideband signals via a communication system adapted for transmitting narrow-band signal."

Similar to above, rather than providing any further prima facie obviousness analysis, the Examiner would appear to be merely picking and choosing which features to add to Jolma et al. to build the presently claimed invention, without proper regard for the required motivational link between Jolma et al., the recited motivation, and the secondary reference providing the missing feature. The Examiner has only sets forth a vague rationale for generally adding any feature to the underlying system.

The Examiner's suggested substantive change to the underlying system would not have been obvious, at least based upon the vague reason relied upon by the Examiner. It is unclear the relationship between the claimed features of dependent claim 19, and the relied upon "to provide multiple access diversity transmitting wideband signals via a communication system adapted for transmitting narrow-band signal."

Again, the Examiner would appear to merely be citing secondary references and suggesting the modification of the primary reference's system, or corresponding already modified system, to include features from such secondary references for vague and indistinct reasons that do not pertain to the underlying primary reference and do not provide any prima facie obviosness supporting reasoning why one skilled in the art would derive from that reasoning the need or desire to incorporate the additional feature.

In addition, features in the secondary references do not automatically transfer with the proffered combination merely because another feature from that secondary reference was also combined with a primary reference. Each proffered feature from secondary references must be supported by a prima facie obviousness case for that feature to be combined with the already modified primary reference.

Accordingly, it is respectfully submitted that the rejection of claim 19 fails to meet a prima facie obviousness standard.

6. Dependent claims 20 and 32

It is respectfully submitted that dependent claims 20 and 32 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al. and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

7. Dependent claims 24 and 25

It is respectfully submitted that dependent claims 24 and 25 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al. and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

It is further respectfully submitted that dependent claims 24 and 25 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al. and Bender et al., for at least their respective features.

Dependent claim 24 sets forth "wherein another signal transmitted in the downstream direction is a training sequence signal, and dependent claim 25 sets forth "wherein another signal transmitted in the downstream direction is a data signal."

Here, both claims 24 and 25 recite the use of "another" signal transmitted in the downstream direction, while the Examiner has already set forth a rejection based on a modification of Jolma et al. to include the feature of "wherein the signal transmitted in the downstream direction is a pilot signal." Thus, the Jolma et al. system, as proposed by the Examiner, already uses a pilot signal to meet the claimed signal transmitted in the downstream direction.

Further, with the use of pilot signal as the claimed signal transmitted in the downstream direction, there would not appear to any reason to further include another "pilot" signal in the downstream direction, as the Examiner has suggested that the "pilot" signal of Hayashi et al. could be added to the Jolma et al. system.

Though the Examiner has interpreted the "pilot" signal of Hayashi et al. as meeting the claimed training sequence signal, Hayashi et al. calls this signal a "pilot" signal, and the Examiner has already modified Jolma et al. to include a "pilot" signal. Here, renaming the pilot signal of Hayashi et al. to be a "training sequence signal" does not change the underlying use and application of that signal in Hayashi et al., i.e., it would operate as a pilot signal, which the Jolma et al. system already is modified to include. Thus, there is no reason for adding this signal of Hayashi et al. to the already modified Jolma et al. system.

In addition, as discussed above regarding the proposed modification of dependent claim 19, regardless of what additional features are set forth in Hayashi et al., they all do not automatically become obviously incorporated into the Jolma et al. system. There must be an articulated reason for adding the additional features.

Accordingly, it is respectfully submitted that the rejection of claims 24 and 25 fail to meet a prima facie obviousness standard.

8. Dependent claims 26 and 27

It is respectfully submitted that dependent claims 26 and 27 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al. and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

It is further respectfully submitted that dependent claims 26 and 27 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al. and Bender et al., for at least their respective features.

Dependent claim 26 sets forth "wherein the mobile station estimates a radio field attenuation in the downstream direction on the basis of the measured reception power and sets the transmission power such that the radio field attenuation is partially compensated," and dependent claim 27 further sets forth "wherein the mobile station sets the transmission power such that the radio field attenuation is completely compensated."

Here, the Examiner has taken Official Notice. Applicants previously requested that a reference be provided supporting such a conclusion and that proper motivation be provided to support the conclusion that such a feature would be an obvious modification of the underlying primary reference. However, the Examiner appears to have disregarded this request, and merely repeated rejection in subsequent actions.

To disclose the claimed "partial" compensation and the "complete" compensation, the Examiner has merely stated that "Official Notice is taken that the concept partially and/or complete compensation are well known in the art. It would have been obvious [for] the attenuation of the received signal is estimated, and on the basis of this, the mobile station is able to set the transmission power to partially and/or complete compensate the path loss during transmission ensuring high throughput data transmission."

While "official notice" may be relied upon, as noted in MPEP §2144.03, these circumstances should be rare when an application is under final rejection or action under 37 CFR §1.113. Official Notice unsupported by documentary evidence should be only be taken by the Examiner where the facts asserted to be well known, or to be common knowledge in the art

are capable of instant and unquestionable demonstration as being well-known and only when such facts are of notorious character and serve only to "fill in the gaps" which might exist in the evidentiary showing made by the Examiner to support a particular ground of rejection.

Conversely, here, it is respectfully submitted that the features relied upon by the Examiner are not instant and unquestionable demonstrations of well known concepts. These are rather substantive features that are not disclosed in any of the relied upon references, and thus the Examiner has again merely identified features (by taking Official Notice) and merely concluded that it would have been obvious to add the same to the Jolma et al. system to read on these particular claims.

Similar to the taking of Official Notice for the missing features, the Examiner would appear to be relying on a broad concept that "partially and/or complete compensation are well known in the art," to support the underlying reason supporting obviousness rationale. This would appear to be contrary to the aforementioned guidelines, since such concepts are not instantly and unquestionably demonstrated and do more than just fill in the gaps. Further, as pointed out previously, Jolma et al. would only appear directed toward complete compensation, and it would appear contrary to purposely have less than full compensation when full compensation is available. So, it would not appear obvious to modify Jolma et al. to have this feature.

Further, in a previous response it was pointed out that the applicant should be presented with the explicit basis on which the Examiner regards the matter as subject to official notice sufficient to allow the applicant a proper opportunity to challenge that assertion. Again, Applicants have not been provided any support for these Official Notice statements, either support for the well known characteristics of the missing features, or the well known characteristics of the relied upon reason for modifying the Jolma et al. system to include the same.

Lastly, again, it is respectfully submitted that the Examiner's stated reason for modifying the Jolma et al. system is vague and indefinite. The stated reason is a conclusion rather than evidenced reasoning.

Accordingly, it is respectfully submitted that the rejection of claims 26 and 27 fail to meet a prima facie obviousness standard.

9. Dependent claims 28 and 29

It is respectfully submitted that dependent claims 28 and 29 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al, and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

It is further respectfully submitted that dependent claims 28 and 29 are patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al, and Bender et al., for at least their respective features.

Dependent claim 28 sets forth "wherein at least one auxiliary information is inserted into the signal sent in the downstream direction, this being employed by the mobile station for setting the transmission power," and dependent claim 29 sets forth "wherein the auxiliary information is composed of an information about the transmission power used by the base station in the downstream direction."

Here, the Examiner has merely cited to additional features in Gardner et al. and failed to present any further obviousness rational as to why it would have been obvious to further modify the Jolma et al. system to include these additional features. To disclose these claimed features, the Examiner is further relying upon a different portion of Gardner et al. than previously relied upon to modify Jolma et al. Thus, these are new features that are not automatically incorporated into the Jolma et al. system with the original modification of Jolma et al.

Again, features in the secondary references do not automatically transfer with the proffered combination merely because another feature from that secondary reference was also combined with a primary reference. Each proffered feature from secondary references must be supported by a prima facie obviousness case for that feature to be combined with the already modified primary reference. The rejections of claims 28 and 29 do not set forth any obviousness reasoning.

Accordingly, it is respectfully submitted that the rejection of claims 28 and 29 fail to meet a prima facie obviousness standard.

10. Dependent claim 31

It is respectfully submitted that dependent claim 31 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al. and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

It is further respectfully submitted that dependent claim 31 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al. and Bender et al., for at least its respective features.

Dependent claim 31 recites "wherein the access radio block is not spread."

In the rejection of claim 31 the Examiner has taken a position that "Jolma et al. do not mention about the access radio is spread. Therefore, it is inherently that the access radio is not spread."

This is an improper use of inherency in rejecting claim 31. If Jolma et al. fails to indicate whether an access radio block is spread, then Jolma et al. cannot be relied upon to disclose either the spreading of that access radio block or the access radio block not being spread. An additional teaching must be used to explain either that Jolma et al. actually does or does not spread the access radio block.

Accordingly, this is both an improper use of an inherency rejection rationale and further fails to meet a prima facie obviousness case.

It is respectfully submitted that the rejection of claim 31 fail to meet a prima facie obviousness standard.

B. Claim 21 stands rejected under 35 USC 103 as being obvious over Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., in view of Gilhousen et al., U.S. Patent No. 5,485,486.

It is respectfully submitted that dependent claim 21 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al. and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

It is further respectfully submitted that dependent claim 21 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al. and Bender et al., for at least its respective features.

Dependent claim 21 sets forth "wherein the mobile station sets the transmission power all the higher the lower the measured reception power is."

To disclose this feature, the Office Action first states that Gilhousen et al. discloses this feature and that it would have been obvious to modify the proposed combination system to further include this feature "in order to provide the mobile station respond with a higher transmitted power to a higher power cell."

Here, similar to the above discussion regarding dependent claim 19, this relied upon reason for modifying the Jolma et al. system would not appear to be definite or distinct, and is unclear how or why it would related to the Jolma et al. system.

This recitation "to provide the mobile station respond with a higher transmitted power to a higher power cell" is only the Examiner's perceived benefit of some feature of Gilhousen et al. and there is no evidence that the Jolma et al. system would need or desire such a feature, or that the same is even reasonably capable of being modified to include the same.

Rather, as noted above in the discussion regarding claim 19, this rejection is based solely on a proposed modification of the Jolma et al. system to include a random feature the Examiner found when searching for the claimed features, without the suggested feature not having any relationship with the Jolma et al. system.

Further, due to the unclear nature of the Office Action recited reasoning, it is unclear what the actual "reason" is that is being relied upon for suggesting to modify the Jolma et al. system.

Accordingly, it is respectfully submitted that the rejection of claim 21 fails to meet a prima facie obviousness standard.

C. Claim 30 stands rejected under 35 USC 103 as being obvious over Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., in view of Bender et al., U.S. Patent No. 6,366,779.

It is respectfully submitted that dependent claim 30 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., and Oberholtzer et al., Gilhousen et al. and Bender et al., for at least the above reasoning set forth for independent claim 18 and dependent claim 19.

It is further respectfully submitted that dependent claim 30 is patentalby distinct from Jolma et al., Gardner et al., Hayashi et al., Oberholtzer et al., Gilhousen et al. and Bender et al., for at least its respective features.

Dependent claim 30 recites "wherein a broadband frequency range is divided into sub-ranges having a narrower bandwidth within a frequency channel for the random access, the mobile station that requests the connection setup selecting a sub-range within said frequency channel, and the mobile station sending the access radio block to the base station in this sub-range."

In rejecting claim 30, the Examiner has merely summarized all the features of claim 30 as meaning "the connection setup selecting a sub-range within said frequency channel" and relied upon Bender et al. to disclose this feature, stating that it would have been obvious to modify the Jolma et al. system to include the feature of Bender et al. "in order to provide mobile station connection without waiting from base station."

However, similar to the above discussion regarding dependent claim 19, this reasoning for modifying Jolma et al. would appear to be vague and unclear, and further unrelated to the underlying systems or suggested in a cavalier manner without consideration of the underlying systems. There is no evidence in the record that suggests that there is any "waiting from base station" in the Jolma et al. system, or that there is any further reason for changing Jolma et a. to include the features of Bender et al. to accomplish any other goals.

Rather, again, the recited rejection is only based upon a citation of a feature in Bender et al. and a broad and indefinite reason for generally adding the stated feature to any reference.

Accordingly, it is respectfully submitted that the rejection of claim 30 fails to meet a prima facie obviousness standard.

VIII. CONCLUSION

In view of the law and facts stated herein, the Appellant respectfully submits that the Examiner has failed set forth a prima facie obviousness case against the pending claims.

For all the foregoing reasons, the Appellant respectfully submits that the cited prior art does not teach or suggest the presently claimed invention. The claims are patentable over the prior art of record and the Examiner's findings of unpatentability regarding claims 18-21 and 24-35 should be reversed and the patentability over the presently cited references be affirmed.

The Commissioner is hereby authorized to charge any additional fees required in connection with the filing of the Appeal Brief to our Deposit Account No. 19-3935.

Respectfully submitted,

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IX. CLAIMS APPENDIX

1-17. (Canceled)

18. (Previously Presented) A method for connection setup for mobile stations of a radio communication system having at least one base station, comprising:

recurrently offering frequency channels for a random access in an upstream direction for the mobile stations;

in the mobile station that requests a connection setup, measuring a reception power of a signal sent from the base station in a downstream direction; and

in the mobile station, setting a transmission power dependent on the measured reception power for sending an access radio block to the base station,

wherein codes are used to separate information of different connections between the base station and mobile stations,

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power, and

wherein the signal transmitted in the downstream direction is a pilot signal.

19. (Previously Presented) The method according to claim 18, wherein the radio communication system is configured as a TDMA/CDMA radio communication system, plurality of connections between the mobile frequency channels information of different connections can be distingulshed from one another according to a connection-individual code, whereby information is simultaneously transmitted between stations and the base station in time slots based on the information of the codes used to separate information of different connections.

20. (Previously Presented) The method according to claim 19, wherein the information of different connections are spread with the individual codes.

21. (Previously Presented) The method according to claim 18, wherein the mobile station sets the transmission power all the higher the lower the measured reception power is.

22-23. (Canceled)

24. (Previously Presented) The method according to claim 18, wherein another signal transmitted in the downstream direction is a training sequence signal.

25. (Previously Presented) The method according to claim 18 wherein another signal transmitted in the downstream direction is a data signal.

26. (Previously Presented) The method according to claim 18, wherein the mobile station estimates a radio field attenuation in the downstream direction on the basis of the measured reception power and sets the transmission power such that the radio field attenuation is partially compensated.

27. (Previously Presented) The method according to claim 26, wherein the mobile station sets the transmission power such that the radio field attenuation is completely compensated.

28. (Previously Presented) The method according to claim 18, wherein at least one auxiliary information is inserted into the signal sent in the downstream direction, this being employed by the mobile station for setting the transmission power.

29. (Previously Presented) The method according to claim 28, wherein the auxiliary information is composed of an information about the transmission power used by the base station in the downstream direction.

30. (Previously Presented) The method according to claim 18, wherein a broadband frequency range is divided into sub-ranges having a narrower bandwidth within a frequency channel for the random access, the mobile station that requests the connection setup selecting a sub-range within said frequency channel, and the mobile station sending the access radio block to the base station in this sub-range.

31. (Previously Presented) The method according to claim 18, wherein the access radio block is not spread.

32. (Previously Presented) The method according to claim 18, wherein the access radio block is spread with an individual code.

33. (Previously Presented) A mobile station to which a connection setup is to be provided in a radio communication system having at least one base station, and wherein frequency channels are recurrently offered for a random access in an upstream direction for the mobile station, comprising:

a measuring unit for measuring a reception power of a signal sent from the base station in a downstream direction when the mobile station requests a connection setup;

a transmission power setting unit which, dependent on measured reception power, sends an access radio block to the base station; and

a control panel for triggering the random access,

wherein said measuring unit comprises a signal processing unit for measuring the reception power of the signal sent in the downstream direction from the base station and for generating the access radio block,

wherein said transmission power setting unit comprises a control unit for setting the transmission power for the transmission of the access radio block to the base station dependent on the measured reception power,

wherein codes are used to separate information of different connections between the base station and mobile stations,

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power, and

wherein the signal transmitted in the downstream direction is a pilot signal.

34. (Previously Presented) A base station in a radio communication system wherein a connection setup occurs from mobile stations, and wherein the mobile station that requests a connection setup measures a reception power of a signal sent from the base station in a downstream direction, and wherein the mobile station sets a transmission power dependent on the measured reception power for sending an access radio block to the base station, comprising:

a unit for recurrently offering frequency channels for a random access in an upstream direction for the mobile stations;

a signal processing unit for generating the signal to be transmitted in the downstream direction; and

a control unit for setting a transmission power for sending the signal to the mobile station that requests the connection setup,

wherein codes are used to separate information of different connections between the base station and mobile stations,

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power, and

wherein the signal transmitted in the downstream direction is a pilot signal.

35. (Previously Presented) A mobile station for transmission of data, block-by-block, to a base station on frequency channels, which are recurrently offered for random access, comprising:

a measuring unit for measuring a reception power of a broadcast signal transmitted by the base station, the broadcast signal being selected from the group consisting of a training sequence signal, a data sequence signal, a pilot signal and a control signal;

a transmitter to send an access radio block to the base station without a frequency channel having been previously allocated to the mobile station, the access block requesting a connection setup with the base station, the transmitter transmitting the access block to the base station on a random access channel; and

a power limiter to limit a transmission power of the access radio block before transmission of the access radio block such that the transmission power is reduced for a larger reception power and the power is increased for a lower reception power,

wherein codes are used to separate information of different connections between the base station and mobile stations,

wherein if the access radio block, sent to the base station, has not been successfully detected by the base station, a new access radio block is sent by the mobile station with increased power.

X. EVIDENCE APPENDIX

None

XI. RELATED PROCEEDINGS APPENDIX

None